"The ABCs of Water Conservation: The Current Experience, A Global View"

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More and more, w*ater conservation in an imperative, not an option.* From a global to the local view, the state of the world's water in both quantity and quality is in trouble. Every day, in every major region of the world, a growing portion of the world's expanding population bears witness to drought and long-term water shortages. By 2025, water shortages are projected to impact over 2.5 billion people worldwide. Further, global warming and rising temperatures are expected to increase evaporation, giving us even less freshwater in the future.

Water utilities that have "mined" their water waste through aggressive and comprehensive water conservation programs have achieved remarkable results that are preserving water supplies and in some cases saving consumers hundreds of millions of dollars. The Massachusetts Water Resources Authority (Boston, MA) reduced its total average demand from 340 mgd in 1988 to 225 mgd in 2005–a 115 mgd system-wide savings (34%) that saved that utility over $800 million in avoided new supplies. Similarly, New York City's average 1.5 bgd demands in the early 1990s have reduced to less than 1.1 bgd today. NYC's conservation efforts saved over 400 mgd system-wide (27%) and canceled a $1 billion wastewater treatment plant expansion. These two examples demonstrate what many other U.S. water systems also have the potential to achieve: over 30% system-wide demand reductions are possible when a true commitment is made to water conservation.

How can water utilities realize significant savings from conservation such as those achieved by the MWRA and NYC? The right mix of water-thrifty policies, plans and programs directed at every category of water user. *There are hundreds of ways to save water–and permanently.* Here are some examples:

- *Water Utilities*–Reduce system leakage and losses (Unaccounted-for Water) to a maximum of 10%. Repair leaking customer service lines. Meter and limit–and in some cases, prohibit–withdrawals from private wells. Make private wells subject to the same local water efficiency restrictions that apply to public water system customers. Establish inclining rate structures and seasonal water use surcharges.
- *Residential customers*–Install high efficiency fixtures and appliances. Fix leaks. Limit lawn watering to a maximum of 1 or 2 days per week. Shut-off irrigation systems that violate watering rules. Reduce area allowed for irrigation. Prohibit run-off. Promote natural lawns and landscapes. Educate the public about the hazards of lawn chemicals (nearly 70 Canadian cities and towns ban them) and also their link to high water use.
- *Industrial, Commercial and Institutional/Public Customers*–Prohibit once-through cooling. Optimize water-based heating and cooling systems. Fix leaks. Install high-efficiency plumbing fixtures, appliances, and air-cooled equipment.

In sum, we are just beginning to tap our potential to boost the productivity of water. Words alone do not conserve water; water savings from conservation are achieved by taking practical actions and installing efficiency measures. Pursue water conservation, not just water *conversations*. Are you going to pursue conservation or complacency? The choice is yours.

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